Telegram Open Network

Introducing next-generation multi-blockchain
Proof-of-Stake system — TON (*Telegram Open Network*)
designed to host a new generation of cryptocurrencies
and decentralized applications, at a massive scale.

THE CHALLENGE

Bitcoin has established itself as the «digital gold», and Ethereum proved to be an efficient platform for token crowd sales. However, a cryptocurrency used for regular value exchange in the daily lives of ordinary people is yet to be created. The blockchain ecosystem needs a decentralized counterpart of everyday money — a truly mass market cryptocurrency.

The established blockchain networks — Bitcoin and Ethereum — support a maximum of **only 7 and 15 transactions per second** respectively, which results in insufficient speed and higher cost of transactions.

Regular users starting to engage with Bitcoin and similar technologies **often get confused** when trying to buy, store and send their coins.

The market of goods and services sold for cryptocurrencies is limited, and the **demand** for crypto-assets **comes mainly from investors, not consumers**.

OUR VISION

Exchanging value should be as easy as exchanging information and blockchain provides the ideal foundation to make this real. To reach mainstream adoption, a cryptocurrency, its underlying blockchain design and ecosystem require:

Speed and scalability that allows for processing millions of transactions per second and accommodating hundreds of millions of active users and millions of applications.

Intuitive user interfaces that enable a mass user to easily buy, store and transfer value, as well as use decentralized apps in a natural way.

An engaged user base that provides pre-existing critical mass necessary for the ecosystem to grow and eventually become adopted by hundreds of millions of users.
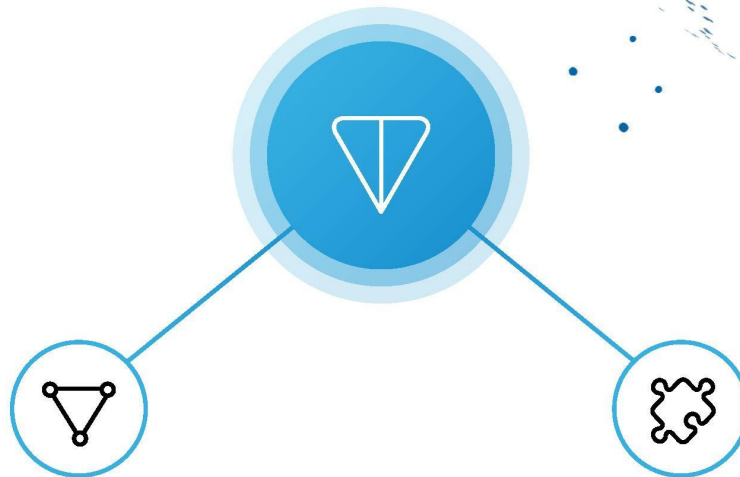
Telegram is in a unique position to provide this combination and establish the first mass market cryptocurrency.

Telegram will use its expertise to create TON, a fast and infinitely scalable multi-blockchain architecture. TON is essentially an always expanding and contracting decentralized supercomputer and value transfer system. By combining minimum transaction time with maximum security, TON can become a VISA/Mastercard alternative for the new decentralized future.

1. In October 2017, Telegram reached 170 million monthly users and delivered 70 billion messages every day.

2. Telegram will rely on its 10-year experience in building **user-friendly interfaces** for tens of millions to build light wallets, markets and identification services that will allow users to get on board with cryptocurrencies in an intuitive way. Integrated into Telegram applications, the TON wallet can instantly become the world's most adopted cryptocurrency wallet.

3. Telegram will leverage its **existing ecosystem** of communities, developers, publishers, payment providers and merchants to drive demand and value for TON cryptocurrency.

4. The physical infrastructure of Telegram reflects its founders' belief in larger decentralization. Telegram deploys a distributed server infrastructure to synchronize encrypted data across multiple independent server clusters spread across different continents and jurisdictions.

Telegram Open Network

Since taking cryptocurrencies mainstream in 2018 would not be possible using the existing blockchain platforms, Telegram co-founder Dr. Nikolai Durov set out to find a novel solution to match the required speed and scalability. His research resulted in the design for the Telegram Open Network — a fast and secure blockchain and network project.

TON BLOCKCHAIN

Scalable and flexible blockchain architecture that consists of a master chain and up to 5 Octilion accompanying blockchains Technical White Paper, Section 2.

TON PLATFORM

To ensure that TON Blockchains could achieve true scalability, interoperability and usability, several additional components were introduced into its architecture. These components further increase the potential applications of the TON infrastructure.

Telegram Messenger-TON Integration

LIGHT WALLET

The TON architecture supports light clients that can run on almost any device without consuming significant resources. Utilizing this opportunity, TON light wallets will be built into Telegram applications on all platforms.

This will make over 170 million users instantly connected to the blockchain, making it immediately mainstream This will allow millions of users to securely store their funds in the TON blockchain. The wallet owners will be the sole holders of the corresponding private encryption keys.

EXTERNAL SECURE IDS

Since the majority of actors in the new digital economy already have active Telegram accounts, it is natural for Telegram to offer a secure universal ID.

After passing KYC-AML (unclear) on Telegram once, users will get a virtual passport to log in to services that require user verification, which will eliminate a major point of friction for everyone engaging with crypto-assets.
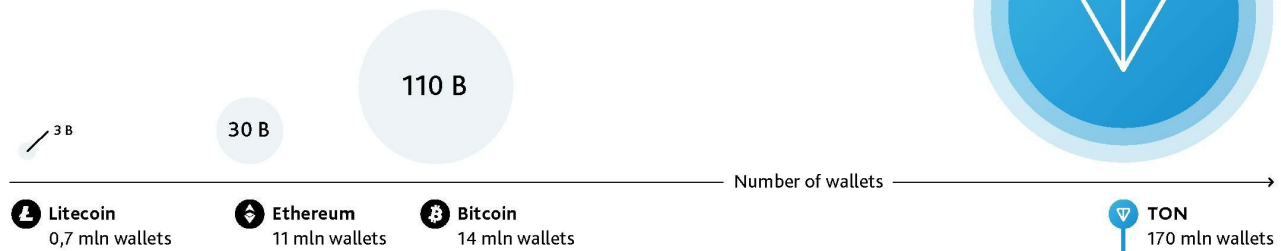
ECOSYSTEM

Telegram's existing ecosystem will offer simple ways of buying the TON cryptocurrency (grams) – and a range of services to drive demand and fundamental value for them.

— Bot Platform;
— Groups and Channels;
— Digital Content and Physical Goods;
— A Gateway For Decentralized Services.

Market overview

Market Cap, USD

110 B

30 B

3 B

Number of wallets →

Litecoin
0,7 mln wallets

Ethereum
11 mln wallets

Bitcoin
14 mln wallets

TON
170 mln wallets

Roadmap

Q1 2018   Launch of Telegram External ID.

Q2 2018   Launch of the Minimal Viable Test Network of TON.

Q3 2018   Testing and Security Audits of TON.

Q4 2018   Deployment of Stable Network of TON.

Q4 2018   Launch of Telegram Wallet.

Q1 2019   Creation of TON-based economy in Telegram.

Token Distribution

To obtain the resources required to make TON a reality, Telegram is launching a token sale The token sale will use a provisional Ethereum-based ERC20 Token (TON), to be converted 1:1 to native TON tokens (grams) after the deployment of TON Blockchain in 2018.

The total supply of native TON tokens (grams) will amount to 5 000 000 000.

4%	52%	44%

**56% of the total supply
(2 800 000 000 grams) — Reservs:**

52% During the initial stages of active
TON development, at least 52% of the entire supply
will be retained by the TON Reserve to allow for a
fast and stable evolution of the platform.

4% of the supply (**200 000 000** grams) will
be reserved for the development team
with a 4-year vesting period.

**44% of the total supply (2 200 000 000 grams) will be sold
in accordance with the formula below:**

$$P_n := 0.4 \times (1+10^{-9})^n \text{ USD}$$

The price of the first token to be sold will be ~0.1 USD, and each next token will be priced one billionth higher than the previous one. As a result the additional supply coming from the TON Reserve will always be more expensive than the price paid by any of the existing buyers.

This structure should allow the market to define the fair price and volume for the token sale.

Founders

Mr. Pavel Durov and Dr. Nikolai Durov

Founders and Leaders of VK and Telegram.

Between them they have over 20 years of experience in building billion dollar companies used by hundreds of millions of people.

Have won multiple awards, including:

★ **Pavel**

— The most promising Northern European leader under 30 (2014).
— Young Global Leader by the World Economic Forum (2017).

★ **Nikolai**

— Absolute World Champion in Programming (2000, 2001) — one of the 10 people in history to win the ACM International Collegiate Programming Contest twice.

— Gold Medals in International Mathematical Olympiads (1996, 1997, 1998).

— Gold and Silver Medals in International Olympiads in Informatics (1995, 1996, 1997, 1998).

Team

Telegram is a team of A-players. To become part of this team, each of its 15 developers had to either win in the world's top programming contest or to take the first place in one of the nation-wide multi-level coding competitions held by the founder of Telegram.

Core team members have 10-years of experience in building scalable projects for tens of millions of users. Before building Telegram, they created VK, the largest Europe-based social network with over **100 mln active users** that still enjoys a dominating share in its local markets.